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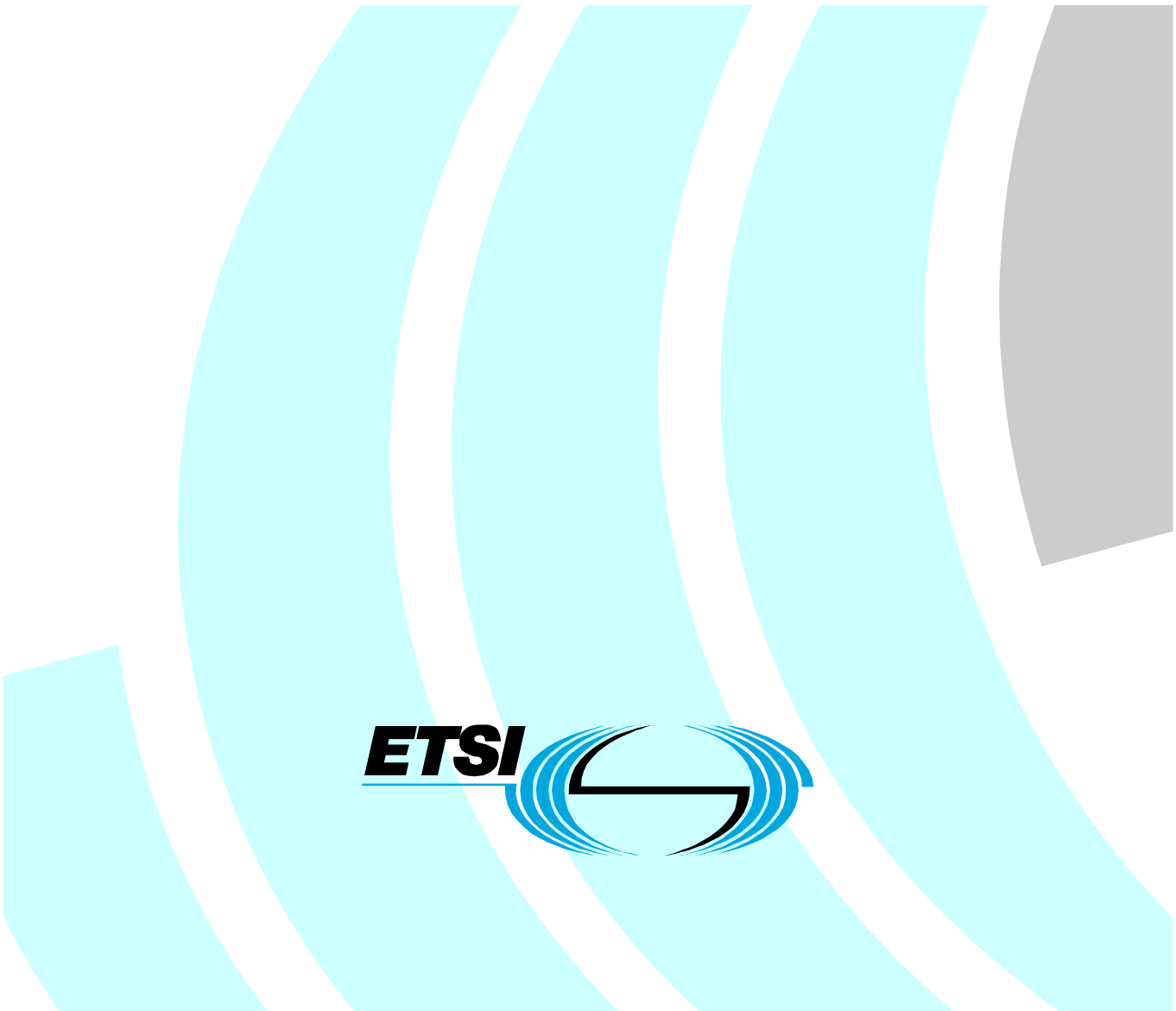
Technical Specification

Access and Terminals (AT);
Network Address Book on fixed network;
Part 2: Service description



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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Access and Terminals (AT).

The present document is part 2 of a multi-part deliverable covering the Network Address Book on fixed network, as identified below:

Part 1: "Overview";

Part 2: "Service description";

Part 3: "vCard 2.1 profile for contact exchange by SMS/EMS for fixed network";

Part 4: "Data synchronization".

NOTE: The parts above refer to the active work items and published standards within ETSI.

Introduction

Some customers wish to be able to use a quickly accessible personal Address Book, allowing them to get in touch with others and giving them a high degree of security regarding the registered data.

The Network Address Book functionality described in the present document allows a user to store information relating to usual correspondents such as name, first name, mailing addresses, telephone numbers, e-mails, pictures and multimedia data.

The Network Address Book (NAB) service allows the served user to access the Address Book also using remote access.

The NAB can be considered as a useful service element which makes it much easier to handle contacts by using only one entity instead of maintaining contacts in different terminals. The NAB service should also provide a WEB access which allows the served user to define authorized users to access his NAB and to manage the contents of his NAB.

1 Scope

The present document defines the stage 1 service description of the Network Address Book service on fixed network independent of the technology. Stage 1 is an overall service description, primarily from the service provider and user's point of view, but does not deal with the details of the human interface itself.

The present document includes information applicable to service providers and equipment manufacturers.

The present document contains the description of the core service features and also optional service features within the Network Address Book Service. The service may be provided on the basis of the core requirements alone. Furthermore, additional functionalities not covered in the present document may be implemented.

Charging principles are outside the scope of the present document.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

[1] ETSI TS 102 334-1: "Access and Terminals (AT); Network Address Book on fixed network; Part 1: Overview".

[2] ETSI TS 102 334-3: "Telecommunications and Internet Converged Services and Protocols for Advanced Networking (TISPAN); Network Address Book on fixed network; Part 3: vCard 2.1 profile for contact exchange by SMS/EMS for fixed network".

[3] ETSI TS 102 334-4: "Access and Terminals (AT); Network Address Book on fixed network; Part 4: Data synchronization".

[4] ETSI TS 102 418: "Access and Terminals (AT); Simultaneous Voice and Text Announcements; PSTN/ISDN; Protocol Description".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Address Book: service by which a user can store and manage contact information

authentication: operation allowing the system to verify a user identity

NOTE: In general, this is performed by the use and check of a username/password.

call without dialling: service element allowing a user to establish a phone call by pronunciation of one alias or a phone number

category: contacts characterized by a common property

direct access: feature allowing to associate a list of Line Identities (from fixed or mobile network) with the personal Network Address Book

NOTE: The access to the NAB from these lines will then be possible without using a password (implicit authentication).

identification: operation allowing the system to obtain the identity of a user

NOTE: The identification can be implicit, for example, evaluating the Calling Line Identity, or explicit by requesting a username/password.

local access: access is local when the connection to the Network Address Book is established from the home subscriber line

Local Address Book: Address Book stored in the terminal (usually a copy of the Network Address Book content)

Network Address Book: Address Book stored in the network

NOTE: The Network Address Book service may provide one or more Address Books stored in the network.

remote access: access is remote when the connection to the Network Address Book is not established from the home subscriber line

SyncML: open standard for Data Synchronization and Device Management. SyncML is a set of protocols designed to synchronize data among workstations, network application servers, and mobile information appliances

NOTE 1: SyncML exploits existing vCard specifications to address Synchronization of Contact related information.

NOTE 2: SyncML data sync is a network and device independent technology to connect and sync any to any, over any network. The OMA (Open Mobile Alliance; http://www.openmobilealliance.org/sitemap.html) is the leading organization in the work on SyncML.

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

3PTY	Three Party Call
AB	Address Book
CCBS	Completion of Calls to Busy Subscribers
CLIR	Calling Line Identification Restriction
CNIR	Calling Name Identification Restriction
EMS	Enhanced Messaging Service
LAB	Local Address Book
PC	Personal Computer
PDA	Personal Digital Assistant
NAB	Network Address Book
NGN	Next Generation Network
SMS	Short Message Service
SM-SC	Short Message-Service Centre
SyncML	Synchronization Markup Language
TISPAN	Telecommunications and Internet converged Services and Protocols for Advanced Networking
vCard	versit Card

4 Description

4.1 Overview

The NAB service allows the user to store contacts, to consult them, to manage them, and to use them also via other services (for example the connection with a party identified by one of the contacts).

According to the service provider options, the customer can:

- Manage and use the NAB service, in text mode (e.g. using PC) or in vocal mode.
- Synchronize the NAB with a LAB of a terminal (in case that the terminal supports it).
- Access the NAB in vocal mode and request a connection to the party identified by a contact stored in the NAB.
- Use the NAB service via other network services.

Main characteristics of the Network Address Book service are:

- **Address Book Access Security:** the users are identified, with explicit or implicit identification, and optionally authenticated.
- **Address Book Management:** the interface (vocal or visual) allows the consultation, the addition, the modification and the deletion of contacts.
- **Connection Establishment using Address Book information:** during access to the NAB service, e.g. via the vocal interface, the user can choose a contact to be connected with.

4.2 Network Address Book data

An address book record should have, as a minimum, fields for Name and Telephone Number. This information may be completed with other fields like Nickname, E-mail address, etc.

5 Procedures

5.1 Provision and withdrawal

The NAB shall be provided to the user after prior arrangement with the NAB service provider or, as a service provider option, be generally available. The NAB shall be withdrawn on the user's request or for service provider reasons.

5.2 Normal procedures

5.2.1 Registration and erasure

Service registration and erasure are controlled in the NAB server. For administration reasons the service provider shall have access to the NAB user profiles.

As a service provider option the served user may have to supply a PIN for registration or erasure.

5.2.2 Activation and deactivation

None.

5.2.3 Invocation and operation

See clause 5.4.

5.2.4 Interrogation

See clause 5.4.

5.3 Exceptional procedures

5.3.1 Registration and erasure

None.

5.3.2 Activation and deactivation

None.

5.3.3 Invocation and operation

None.

5.3.4 Interrogation

None.

5.4 Service requirements

5.4.1 Basic service requirements

The figures in annex A illustrate different possible media to access the NAB. It is up to the service provider to provide at least one of these access possibilities.

5.4.1.1 Network Address Book

5.4.1.1.1 Core requirements

The NAB service shall be provided via the PSTN/ISDN. The NAB server shall be connected to the network via e.g. an ISDN primary rate interface, SS7 or other connection types.

In order to use the NAB service, the user has to establish a connection to the NAB server.

After establishing a connection to the NAB server, the user shall be able to:

- Browse all the contacts of the current NAB.
- Browse the content of a contact entry.
- Add a new contact.
- Modify a contact.
- Delete a contact.
- Request the establishment of a connection to the party indicated within a contact; see clause A.2.

5.4.1.1.2 Optional requirements

The NAB service should provide the user the possibility to:

- Associate a contact to one or more Categories see [2].
- Associate a contact to a specific Class see [2].
- Browse all entries associated to a Category.

5.4.1.2 Vocal mode

5.4.1.2.1 Core requirements

The vocal access to NAB shall be possible with normal voice terminals.

See clause A.2.

5.4.1.2.2 Optional requirements

None.

5.4.1.3 Terminal mode

5.4.1.3.1 Core requirements

To use the NAB service in "terminal mode", specific terminals compatible with NAB service signalling are necessary.

In case that the terminal contains a LAB, the user shall be able to synchronize the LAB with the NAB.

5.4.1.3.2 Optional requirements

In case that the terminal supports more than one LAB, the user should be able to synchronize all of these LABs with their respective counterparts in the NAB.

NOTE: In the residential context, several terminals supporting Address Book features may be connected to the same subscriber line or a single terminal may support several ABs.

5.4.1.4 Web mode

5.4.1.4.1 Core requirements

The user shall be able to manage the NAB service using web access. The web access shall provide the same possibilities as the vocal access as well as other supplementary functions (e.g. multimedia information) not applicable for the vocal mode. See also clause A.6.

5.4.1.4.2 Optional requirements

None.

5.4.1.5 Contacts exchange between the NAB and LAB

5.4.1.5.1 Core requirements

5.4.1.5.1.1 Downloading contacts

The download of one or more contacts from the NAB to the LAB is handled as follows (see also clause A.3):

1) During a vocal access or web access, the user shall be able to select one or more contacts he would like to download to his terminal. See also clause A.3.

2) After the connection between user and NAB server is released, the selected contacts are sent from the NAB server to the terminal via an SM-SC in form of vCards conveyed within EMS messages according to [2]. In this procedure, for each contact, one EMS message carrying one vCard is used. See also clause A.3.

5.4.1.5.1.2 Uploading contacts

Similar to the downloading of contacts from the NAB to a LAB, the user shall be allowed to upload one or more contacts from LAB to NAB. This is done by sending an EMS containing a contact in form of a vCard from the terminal to the NAB (specific number).

5.4.1.5.2 Optional requirements

None.

5.4.1.6 Address Book Synchronization

5.4.1.6.1 Core requirements

The NAB service should provide the possibility for synchronization between a Network Address Book and Local Address Book.

A Synchronization of the LAB and the NAB can be initialized either (see also clause A.4):

- by the terminal (automatically or manually initiated by the user); or
- by the NAB (e.g. initiated manually by the user e.g. by Web interface or vocal mode, and/or automatically after any modifications in the NAB and/or on a regular basis e.g. every night).

NOTE: After a successful synchronization process, the LAB will be consistent with the NAB.

5.4.1.6.2 Optional requirements

The protocol used for data synchronization should be SyncML. More details can be found in TS 102 334-4 [3].

5.4.1.7 Contact exchange between terminals

5.4.1.7.1 Core requirements

None.

5.4.1.7.2 Optional requirements

Independently of the NAB service, the user should be able to exchange contacts between two terminals in form of vCards carried by EMS. See also clause A.5.

More details can be found in TS 102 334-3 [2].

5.4.1.8 Personal Digital Assistants Access

5.4.1.8.1 Core requirements

None.

5.4.1.8.2 Optional requirements

The NAB service should provide means to synchronize the NAB with address books stored on a PDA. See also clause A.7.

5.4.1.9 Access via Home Gateway

5.4.1.9.1 Core requirements

None.

5.4.1.9.2 Optional requirements

The NAB service should provide means to synchronize the NAB with address books stored on a PDA, Terminal or PC behind a Home Gateway; see also clause A.7.

The Home Gateway may be totally transparent to the NAB synchronization or serve as intermediary server. In the last case, a copy of the NAB is stored in the Home Gateway.

5.4.1.10 Remote mode

5.4.1.10.1 Core requirements

None.

5.4.1.10.2 Optional requirements

The NAB service should provide the user the possibility to access the NAB remotely (i.e. from another than his subscriber line). In this case, the NAB shall authenticate the user by requesting the user's home subscriber line identity and a password. See also clause A.8.

In case that the identity of the line used to establish the call to the NAB is contained in the list of "Direct Access" lines configured by the user, no password shall be required.

5.4.2 Additional service requirements

Additional services based on the Network Address Book service may be provided. Below, there are some examples described.

5.4.2.1 Automatic addition of contacts to the NAB

The number of entries in the NAB may, under the customer's control, automatically be enlarged by outgoing and incoming calls or any other services as for example Short Messages Service, Multimedia Messaging Service, directory enquiry, inverse directory enquiry, etc.

5.4.2.2 Reminder memo

In case that a NAB entry contains a date and time entry (e.g. a birthday), the user may request the NAB to remind the user on that date. The user may choose the reminding mode (e.g. fixed/mobile SMS, fixed/mobile MMS, vocal message, e-mail etc.) depending on the available services.

5.4.2.3 Simultaneous Voice and Text Announcements

In case of vocal access to the NAB and if the terminal supports the "Simultaneous Voice and Text Announcements" function, any vocal message may be associated with a text displayed on the terminal screen.

More details on "Simultaneous Voice and Text Announcements" can be found in [4].

6 Interconnection

The NAB service should be accessible via fixed networks (PSTN, ISDN, NGN), mobile networks and the Internet.

7 Interactions with PSTN/ISDN Supplementary Services

This clause describes the interactions with PSTN/ISDN Supplementary Services. Only the most important service interactions are listed here.

7.1 Calling Line/Name Identification Restriction (CLIR/CNIR)

If the user has activated CLIR/CNIR before accessing the NAB, the respective restriction shall be retained by the NAB server in case it establishes a call to a desired party on behalf of the user.

7.2 Three party call (3PTY)

The user may put an already established call on hold in order to establish another call via the NAB and then switch to a 3PTY connection.

7.3 Completion of Calls to Busy Subscribers (CCBS)

An activation of CCBS should be allowed in case the call to the desired party has been established by the NAB.

Annex A (informative): Network Address Book

A.1 Architecture

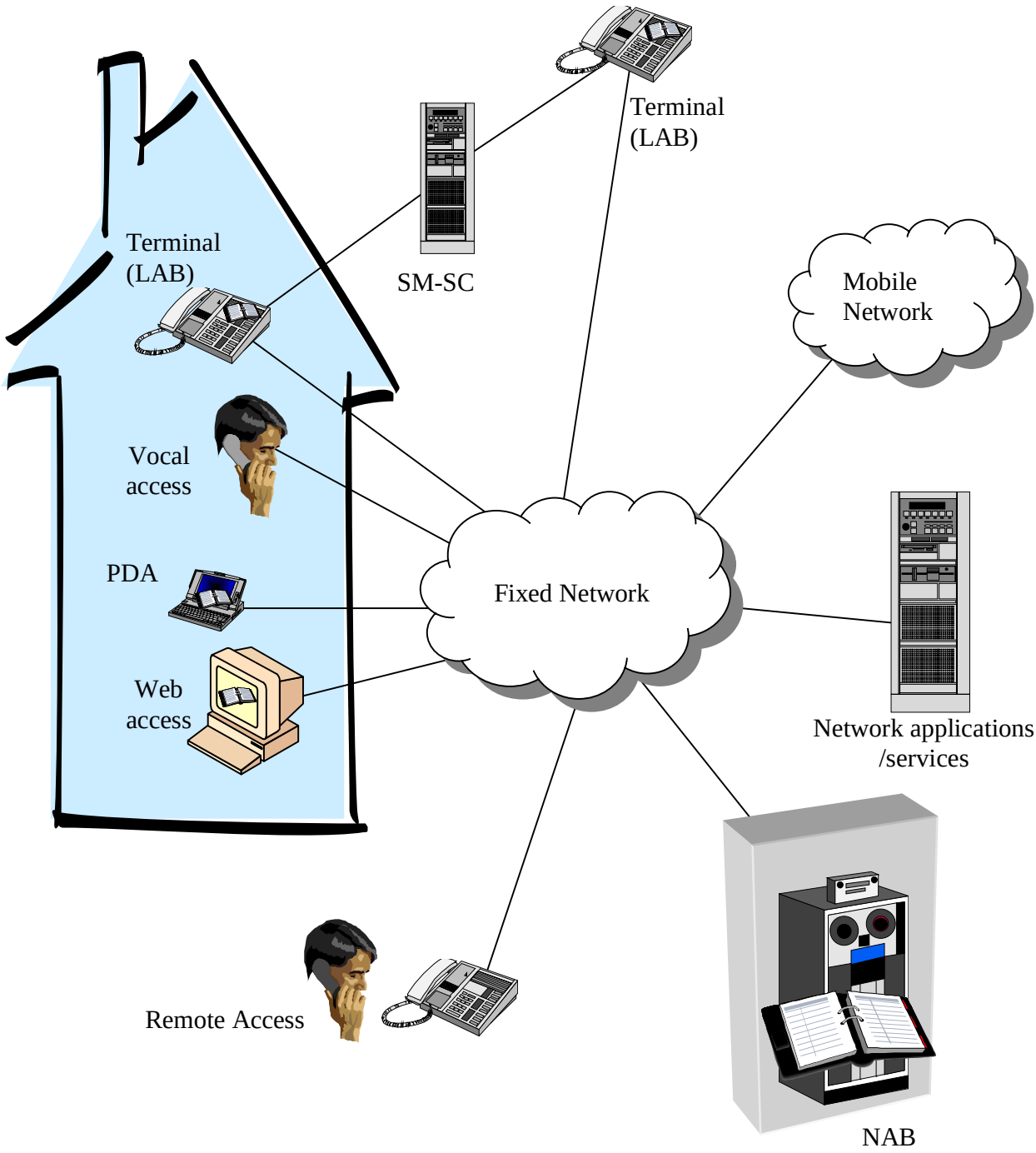

Figure A.1: Architecture

NOTE: In the following parts, to facilitate the reading, the fixed network is not shown.

A.2 Vocal access

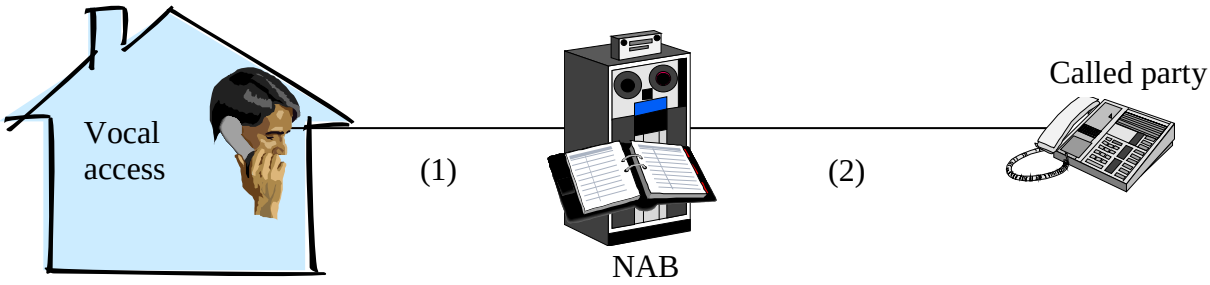

Figure A.2: Vocal access

A.3 Contact exchange between the NAB and terminals

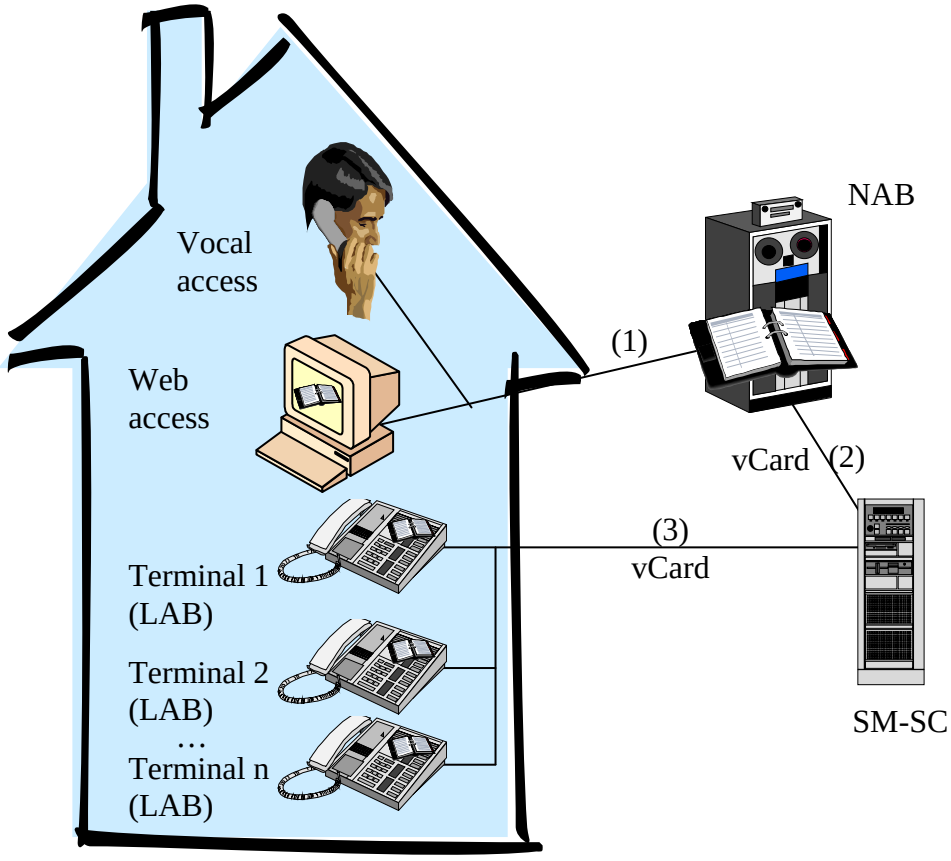

Figure A.3: Contact exchange

A.4 Address Book synchronization

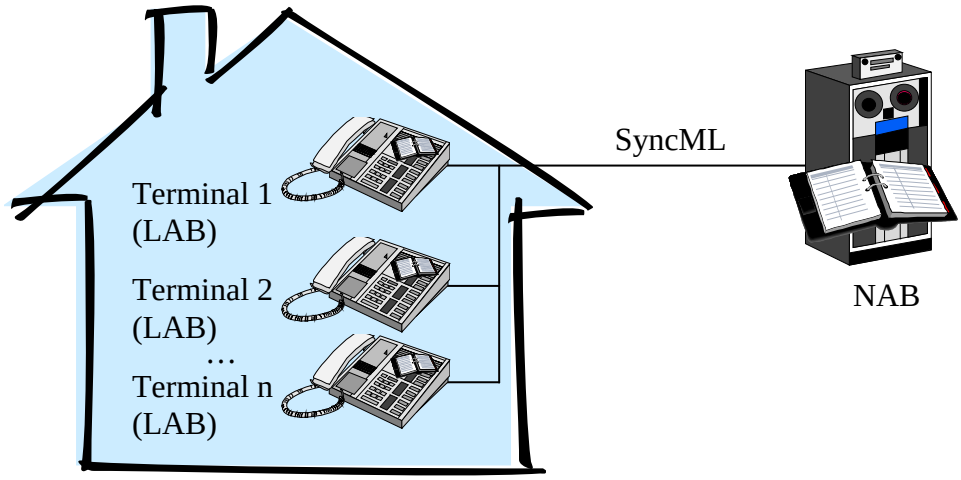

Figure A.4: Synchronization

A.5 Contact exchange between terminals

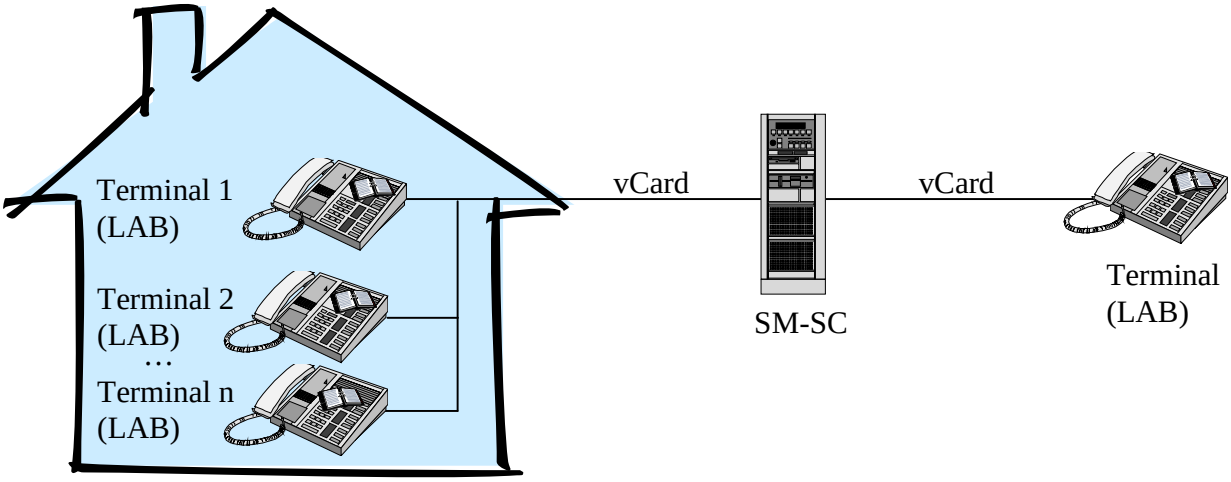

Figure A.5: Contact exchange

A.6 WEB access

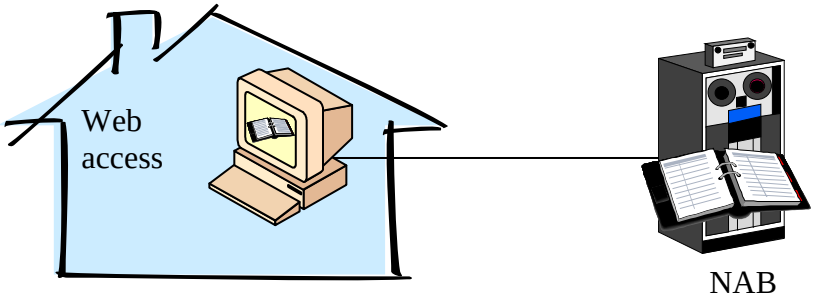

Figure A.6: Web access

A.7 Access via Home Gateway

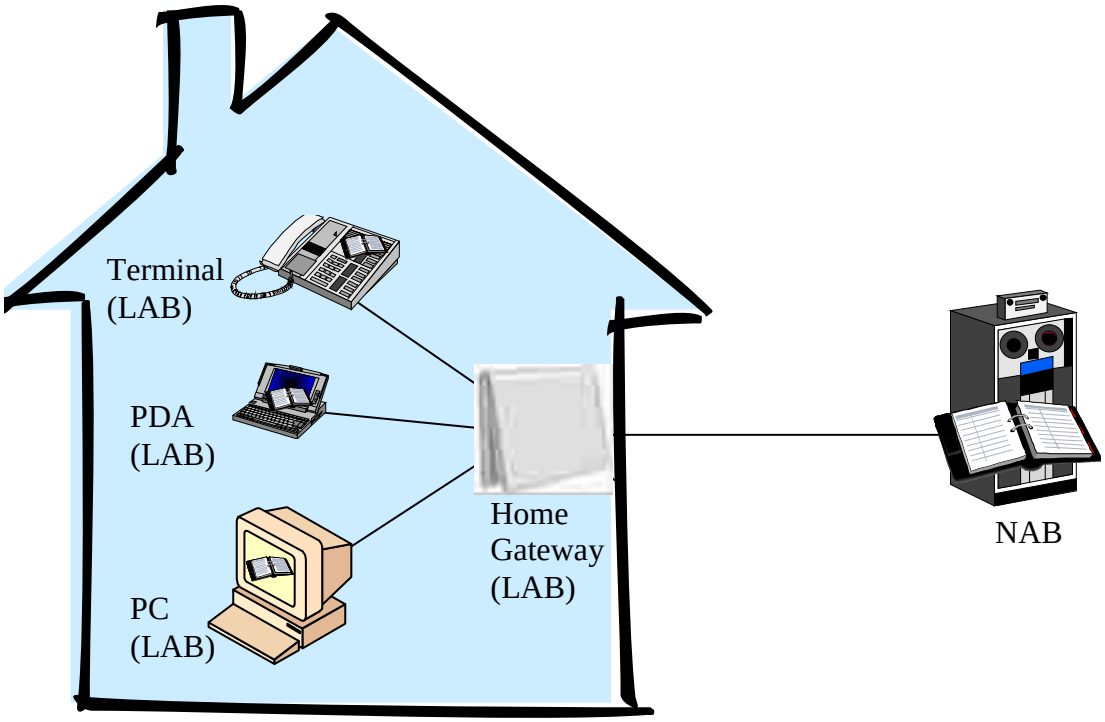

Figure A.7: Access via Home Gateway

A.8 Remote Access

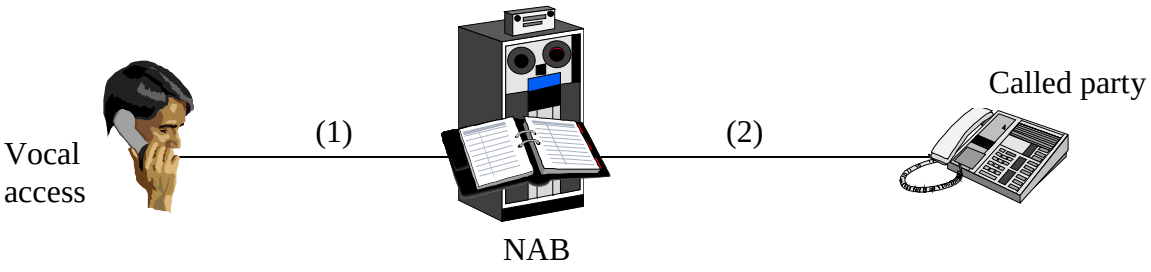

Figure A.8: Remote

History

Document history		
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